

# KOBELCO

## Cranes Europe

Lifting Everyone's Expectations!

Issue 1/Volume 4  
Spring 2024



### CONTRACTORS:

Artes, Denys,  
Dufour, Kandt, VABI,  
Vanthek...

### PROJECTS:

Hyperloop, Afsluitdijk,  
Quesnoy sur Deule  
and more...

### CRANES:

New G-4 Series  
New TKE750G  
and more...



# KOBELCO

Lifting Everyone's Expectations!

## Kobelco G-Series

- EU Stage 5 compliant power plant
- Up to 25% fuel consumption thanks to G-mode: G-Engine, G-winch and Auto-Idle-Stop
- Ergonomic, luxurious, spacious cab with joysticks
- Dual pump flow for clamshell, bucket or material handling\*
- Efficient transport
- Fast assembly / disassembly
- Tractor type crawlers\*
- Over-swing preventative device\*
- Low maintenance
- Excellent reliability
- Worldwide service network

\*optional items

[www.kobelco-europe.com](http://www.kobelco-europe.com)

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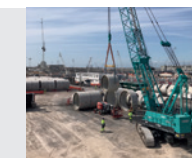
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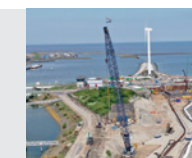
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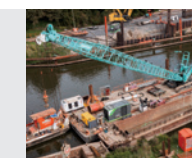
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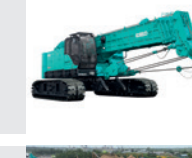
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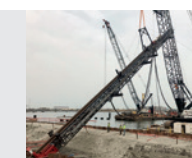
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### Stay in touch...

Join Kobelco Cranes on social media and stay up-to-date with all the latest news and competitions!



COVER: Vantheek's 150-tonne capacity Kobelco CKE1350G crawler crane at work during renovation of the 32 km-long Afsluitdijk, the Netherlands.



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We are also happy to facilitate the sale of any used machines on your behalf

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**Masakazu Usami**  
Division Director Cranes  
(Kobelco Construction Machinery Europe)

Hello and welcome to this special *Intermat* edition of Kobelco Construction Machinery Europe – Crane Division’s customer crane magazine!

If you are holding a paper copy of the magazine, I hope you are enjoying your trip to *Intermat* 2024, “the sustainable construction solutions and technology exhibition”, and our stand, which features, for the first time in Europe, Kobelco’s 75-tonne capacity TKE750G crawler crane with telescopic boom.

For those who couldn’t make it to the show, this issue is packed with news about our latest G-Series crawler cranes, three of which are now available in Europe - the CKE900G-4, CKE1350G-4, and CKE2500G-4.

You can also read all about the very first CKE900G-4 delivered and working in Europe on p8, alongside stories from our valuable customers, including Artes, Denys, Dufour, Kandt, VABI, and Vanthek - from across the region highlighting the important role Kobelco cranes play in safeguarding and building a better future for all of us.

Of course, *Intermat* is about so much more than seeing the latest developments in construction technology. It is also about renewing old friendships and building new ones face-to-face.

So I look forward to meeting as many visitors to our stand as possible.



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# Kandt Blue the right choice for you!

**Delivered in its distinctive blue and white livery, Kandt's new CKE900G-4 comes fully stocked with a complete range of options specified to capitalise on 40 years of expertise in the foundation sector.**

When looking for a new machine to help consolidate and expand its operations, Kandt chose the latest Kobelco CKE900G-4 crawler crane to add to its impressive fleet of modern lifting and foundation equipment.

Shipped from Japan in October 2023, the 100-tonne capacity, ISUZU 6HK1 210 kW-powered CKE900G-4 arrived in Amsterdam in December and, following its delivery to Kandt's workshop, was fitted with the following options ahead of final testing: a 2.5-tonne

hose winch, a pressurized cab, a load view camera system, with a 12-inch screen, a rearview camera, main and auxiliary winch camera, a lefthand side-view camera, a PAT Kruger system for switching from lifting to foundation work, work lights in the boom, which follow the boom angle, and an aluminium walkway on boom.

The impressive list of extras was chosen to give Kandt the edge over its competitors when it comes to winning future work and, with its distinctive blue and white livery,

Kandt's new Kobelco CKE900G-4 crawler crane is not hard to spot when working on-site.

Following the delivery of the first, new Kobelco CKE900G-4 in Europe, Kandt managing director and owner, Marco Kandt declared the new CKE900G-4, "a very nice, smooth operating machine, a pleasure to work with!"

Expanding on the reasons for choosing the CKE900G-4, Marco Kandt added: "Kobelco has a solid reputation in the foundations



industry and offered us a fully stocked very complete foundation machine delivered directly from the factory.

"When Kobelco offered to supply the very first unit of its brand new 100-tonne capacity CKE900G-4, instead of their well-known, successful CKE900G-3, we immediately went for the latest version with the most up to date options available, including the completely new cab.

"Thanks to the counterweight's 3.5m width we can transport the CKE900G base machine, fully equipped with counterweight and 12.2m basic boom with 90-tonne operating weight, with our four-

**“The CKE900G-4 is a very nice, smooth operating machine, a pleasure to work with!”**

**Marco Kandt,  
managing director**

axle truck and nine-axle low-bed trailer (pendle-axes), which means the crane is Immediately ready to start operation on arrival at the job site."

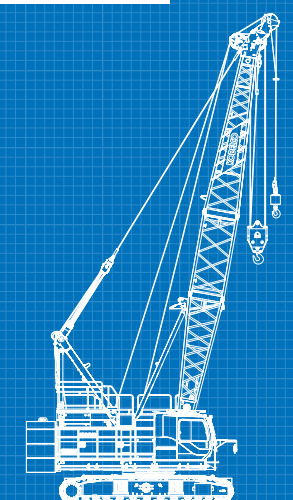
Marco Kandt says the company will be using the CKE900G-4 for all its foundation works with several vibro-blocks, piling hammers, as well as a crane for general lifting duties.

On arrival from Japan the CKE900G-4 started working straightaway at De Groene Boog in Rotterdam, helping construct a new connection between the A16 and A4 motorways, which will provide a better connection with Rotterdam's city centre.

Kandt was awarded the project for delivery and driving into the ground of all of the approximately 1,250 foundation tubes, which are required for the different types of sound isolation screens along the entire route.

Working between 2023 and 2025 Kandt is vibrating 29, 15.75 to 17.25m-long, steel foundation tubes with a diameter of 1016 x 10mm. To complete the work, the CKE900G-4 was equipped with a 36.6m boom and 35-tonne hook block fitted to the main winch. The auxiliary winch, with a single line, was fitted with a 2.5-tonne hose winch and PVE2332 HF/VM with a tube-clamp vibro-hammer, in combination with a PVE 800 powerpack.

## CKE900G-4



ENGINE: STAGE V/TIER 5



MAX LIFT CAP: 100 TONNES



# Kobelco launches new G4 Series for Europe

Kobelco Construction Machinery Co., Ltd. announces the launch of its new G-4 series hydraulic crawler cranes with three new crawler cranes: **CKE900G-4** with 100 tonnes at 3.6m maximum lifting capacity, **CKE1350G-4** with 150 tonnes at 4.4m maximum lifting capacity, **CKE2500G-4** with 250 tonnes at 4.6m maximum lifting capacity

Together with the CKE1350G-4 and CKE2500G-4, the CKE900G-4 is also equipped with an EU Stage V compliant ISUZU engine and continues the same basic concept of the G series CKE900G-3. The crane is available from October 2023.

## Main features

### 1. EXCELLENCE IN DESIGN

The machine concept is built on the same tried and tested technology as the previous G series models offering high reliability, great utilization and simple ease of operation by design alongside excellent durability and commonality across all of the G series models - with the same ease of transportability as previous models.

### 2. STAGE V COMPLIANT ISUZU ENGINE

The new ISUZU engine in the three new crawler cranes is compliant with NRMM (Non-Road Mobile Machinery - Europe) Stage V emissions regulations.

The new CKE900G-4 is powered

by an ISUZU 6HK1 7.79l water-cooled, in-line 6-cylinder direct injection and turbocharged engine, with a rated power of 210kW/1,900 min<sup>-1</sup>.

The new CKE 1350G-4 and CKE 2500G-4 are powered by an ISUZU 6UZ1 9.84l water-cooled, in-line 6-cylinder direct injection and turbocharged engine, with 270kW/2,000 min<sup>-1</sup> of rated power\*.

### 3. NEW ERGONOMIC CABIN

The new cabin offers improved visibility, increased comfort, and simple operation.

#### 1) Improved visibility

The adoption of a crossmember-less structure that does not obstruct visibility from the feet of the operator to the overhead panel and the lower placement of the wiper motor greatly improves operator visibility. Also increasing the wiper area ensures clear visibility. Furthermore, the Machine Learning (ML) monitor has a continuous rotating function horizontally and vertically carried over from the previous G series

providing the operator with even better visibility.

#### 2) Increased comfort

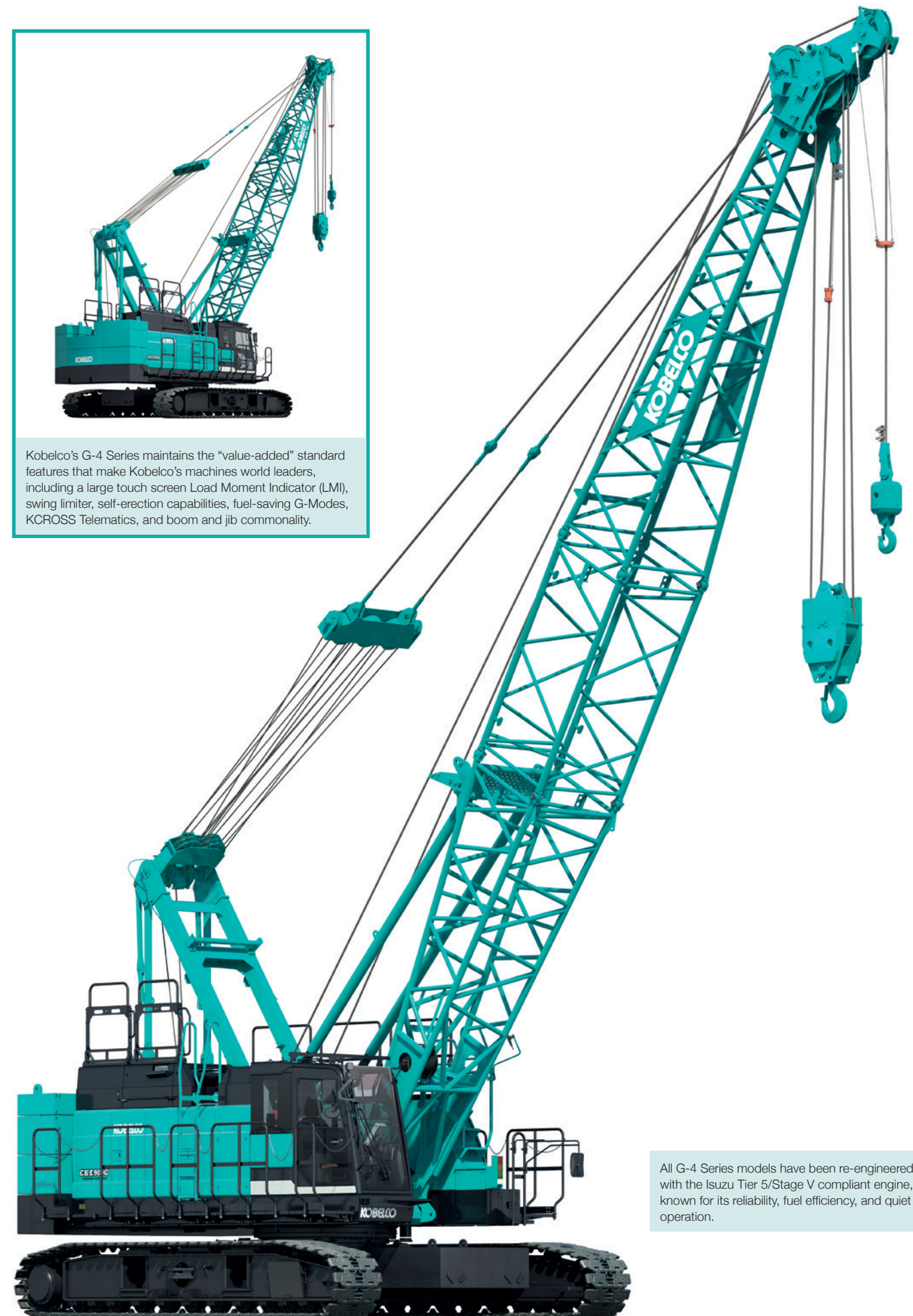
The highly efficient auto air conditioner has air outlets positioned so that the airflow directly reaches the operator's waist, neck, and face area. In addition, a newly designed duct that efficiently cools the space in a short time provides a comfortable workspace.

The seat and lever stand can be adjusted to suit the operator, and the slide width is increased compared to the previous G series models.

Other features include a sliding door that can be opened and closed with a light touch, alongside Bluetooth capabilities and a hands-free phone mount.

#### 3) Simple operation

The new G-4 series uses Kobelco's traditional hydraulic control system. This enables intuitive lever operation - perception of the audible start of drum movement, precision operation, and firm



Kobelco's G-4 Series maintains the "value-added" standard features that make Kobelco's machines world leaders, including a large touch screen Load Moment Indicator (LMI), swing limiter, self-erection capabilities, fuel-saving G-Modes, KCROSS Telematics, and boom and jib commonality.

All G-4 Series models have been re-engineered with the Isuzu Tier 5/Stage V compliant engine, known for its reliability, fuel efficiency, and quiet operation.

\*Engine speed is set at 1,850 min<sup>-1</sup> in power mode.



# KCROSS

## - Crane Remote Observation Satellite System -



KOBELCO has developed a remote operation management system for our cranes. Machines fitted with this system transmit working condition, location, and maintenance history to provide owners with fact-based information that gives tremendous advantages for their asset management.

### Main Functions



LOCATION

#### > Acquire Working Condition and Location of the Fleet

The system is based on satellite mapped images, Internet connection, and other means to remotely monitor a crane's working condition and its location. This information is useful in planning maintenance schedules and providing guidance to operators, helping to ensure that crane owners can maximize their fleet efficiency.



WORKING

#### > Managing Safety/Operational Records and Monitoring Working Status

Crane owners can monitor and record the working condition and operational status of onsite machines on entire fleet basis, promoting greater crane safety.



SAFETY

#### > Remote Failure Diagnosis

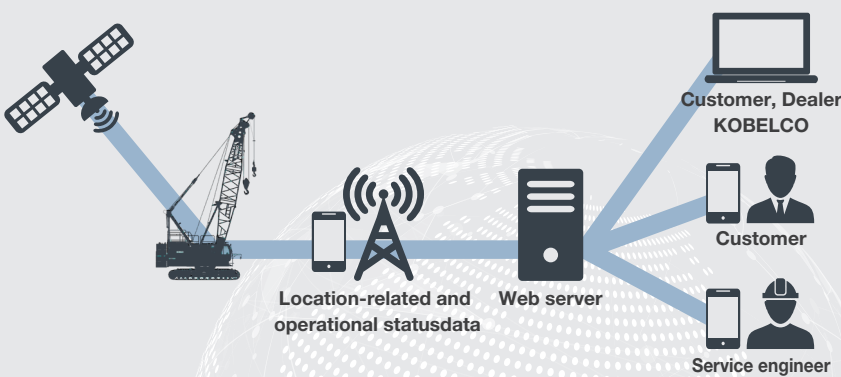
It is possible to narrow down possible failure causes quicker and more accurately by remotely accessing to the current and historical status of the machine, helping to minimize the machine downtime.



MAINTENANCE

#### > Preventive Maintenance Ensures Good Machine Condition and Protects Value

The system recommends appropriate parts replacement timing based on the machine working hour. Regular maintenance can help the machines running at peak performance at all times.

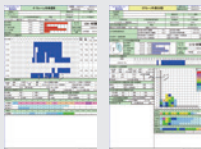


### Viewing of machine data via the Internet allows provision of complex machine data

Using the Internet, customers can check on a crane's operational status from the office, and its location can be checked with GPS. Operation data such as whether or not a crane is in operation, total operating and idling hours, etc., is displayed in easy-to-read graph and table formats.



Location display



KCROSS reports (Possible to customize data)

Operation data can be received on a mobile phone  
When necessary, this system can send data as a text message to a mobile phone



#### Equipment required

IT controller  
IT antenna, GPS antenna  
Set-up package (including bracket, signal relay harness and software)  
Computer with broadband connection for internet access (Microsoft IE6.0)  
Excel software (Microsoft Office 2000 or later) to view downloaded documents

#### Equipment required

KOBELCO hydraulic crawler cranes, including some existing models

### Detailed Machine and Operation Data Can Be Accessed over the Internet

Operating data for a given crane can be accessed and accurately monitored from the Internet terminal in the crane owner's office.

#### Main Data Handled

- Map: Shows past and latest locations and travel history of all machines in the owner's fleet.
- Performance record: Hours of operation, Lift operations, and Safety record in the period of a day, a week, or other desired span.
- At-a-glance function: Outputs a report (in the form of a record log or sheet) that shows whether or not the machine is currently operating, its total operating hours, and other operating data.

stopping of turning at the intended location.

The ML monitor also features a simple interface that allows the operator to complete the machine settings with a minimum of operation.

### 4. ENVIRONMENT FRIENDLY G-MODE

Kobelco's environmentally friendly G Mode functions are retained across all new G series models.

G Mode includes G Winch, which provides high speed without raising engine speed, G Engine, which improves fuel consumption by at least 10%, and an Auto Idle Stop function for Eco driving.



### 5. KCROSS

KCROSS (Kobelco Crane Remote Observation Satellite System) is also retained across all new G series models. Machines fitted with

KCROSS transmit working conditions, locations, and maintenance history to provide owners with fact-based information for their asset management.

## Main specifications

Model		CKE900G-4	CKE1350G-4	CKE2500G-4
Crane Boom	Max. Lifting Capacity	100 t x 3.6m * 90 t x 3.9 m **	150 t x 4.4m **	250 t x 4.6 m
	Max. Length	61.0 m	76.2 m	91.4 m
Fixed Jib	Max. Lifting Capacity	10.9 t x 18.0 m	26.8 t x 16.0 m	27.0 t x 10.4 m
	Max. Combination	51.8 m + 18.3 m	61.0 m + 30.5 m	76.2 m + 30.5 m
Long Boom	Max. Lifting Capacity	-	44.3 t x 10.6 m	47.1 t x 12.8 m
	Max. Length	-	82.3 m	91.4 m
Luffing Boom	Max. Lifting Capacity	-	80 t x 8.0 m	150 t x 7.0 m
	Max. Length	-	47.9 m	61.0 m
Luffing Jib	Max. Length	-	53.3 m	61.0 m
	Max. Combination	-	44.8 m + 53.3 m, 47.9 m + 32.0 m	61.0 m + 61.0 m
Max. Line Pull ***		208 kN {21.2 tf}	234 kN {23.8 tf}	252 kN {25.7 tf}
Rated Line Pull (Single Line)		112 kN {11.4 tf}	132 kN {13.5 tf}	132 kN {13.5 tf}
Wire Rope Diameter		26 mm	26 mm	26 mm
Power Plant		ISUZU 6HK1	ISUZU 6UZ1	ISUZU 6UZ1

\*The value are theoretical result \*\*Auxiliary sheave is necessary \*\*\*Referential performance



# 100 years strong

Established in 1923, Belgium-headquartered Denys has grown into a multidisciplinary contractor specializing in the water, energy, transport and 'special technique' sectors across the EAME region, employing 1800 people.



Denys celebrated its 100th anniversary with a huge banner using one of its Kobelco CKE900Gs.

Denys's fleet of modern and efficient lifting equipment includes several 100 tonne capacity CKE900Gs, as well as several 110 tonne capacity CKE1100G Kobelco crawler cranes.

Throughout its 100-year history, the company has worked on some of the world's most iconic and prestigious projects, including most recently the UK's £46 billion Hinkley Point C nuclear power station and the European Hyperloop Center (EHC) in Groningen, the Netherlands.

'Hyperloop' is a new transportation system where vehicles float on magnetic fields and move through low-pressure tubes. Incredibly energy-efficient it uses just 10% of the energy needed for equivalent road and aviation travel and 50% less energy than rail. And, not only does it produce no noise, vibration, or pollution, but it also doesn't intersect with other infrastructures.

The EHC in Groningen will consist of a 2.6 km-long "test tube", split into three main sections, and will operate as an open testing facility

that provides a home to developers from all over the world to test and validate their hyperloop technologies, while serving as an R&D centre for various activities, such as developing safety standards, and is described as "a place where companies and research institutions can work together to accelerate the realization of the hyperloop."

Working for Hardt Hyperloop at the EHC, Denys has been instrumental in the construction of a 420-m-long test section, which, when



In the UK, one of Denys' most recent undertakings has been the installation of cooling ducts at the UK's Hinkley Point C nuclear power station (HPC) using its 110-tonne capacity Kobelco CKE1100G-2. A two-unit, 3,200 MWe EPR (European Pressurized Reactor) nuclear power station currently under construction in Somerset, England, the site was one of eight announced by the government in 2010. The £46 billion project broke ground in March 2017 and has an estimated commissioning date of 2029–2031. When complete it will be operated by Nuclear New Build Generation Company, a subsidiary of France's state-owned EDF Energy.





complete, will enable testing of all essential hyperloop technologies, including the execution of a full lane switch. The first tubes were lifted into place in September 2023 with the final tubes lifted into place in December.

The biggest pipe at HPC is the lane switch section where the tube diverges from one wide tube into two separate tubes. Hyperloop lane switches are necessary to operate hyperloop networks and the placement in October 2023 marked the halfway point in the construction of the track.

“The special thing about this hyperloop,” says Maurice van Dorst, site manager, Denys, “is that it’s the only one in the world that goes from two tubes to one, which makes it possible to test and travel in the future.

“The concept of transporting people and goods via magnetic tubes has been around for some time,” adds van Dorst. “This hyperloop also attempts to create a European standard, one that can be used throughout Europe.

Construction, which started in late September 2023, saw Denys’ new 100-tonne capacity Kobelco CKE900G-3 deployed with a 33.5m main boom and a 50-tonne lifting block. Used to unload the pipes from the heavy transport vehicles, the crane was then utilised to lift each one onto two support piers.

Designed and produced by Gorinchem-based Mercon, a multidisciplinary contractor specialising in the design, construction, and maintenance of



infrastructure, industrial services, and stainless tanks since 1976.

The standard pipes are 16m long, have a diameter of 2.5m, weigh 24 tonnes, and were straightforward to install, according to van Dorst. The double tubes - the switch elements

- consisting of six parts, were far more complex.

“The weight of the six elements ranged from 37 up to 64 tonnes,” explains van Dorst. “Installation required two cranes, with the Kobelco CKE900G-3

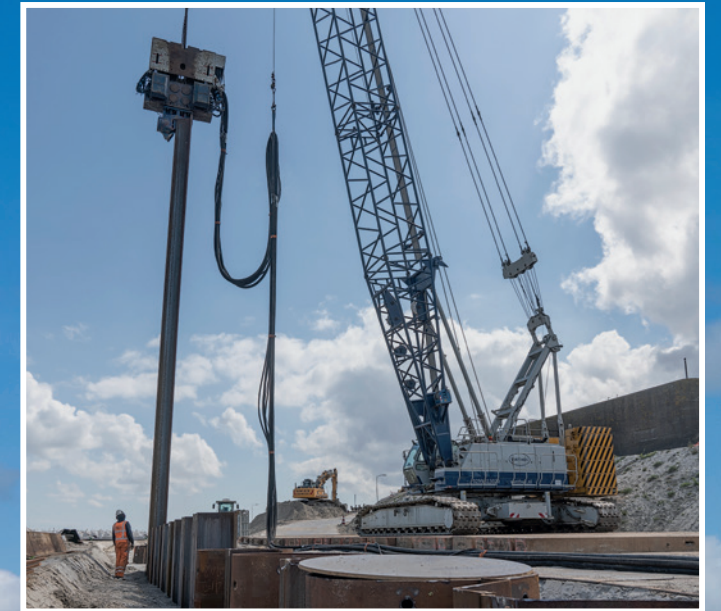
working alongside a 250-tonne ATC crane from Mammoet.

“We are extremely pleased with the performance of our new 100-tonne capacity Kobelco CKE900G-3, which assisted in the rapid completion of this project!”



# Afsluitdijk renovation

Under threat of rising sea levels, more frequent extreme weather events, and with more water flowing from inland waters into the IJsselmeer, Rijkswaterstaat (the Netherlands' Directorate General for Public Works and Water Management) is renovating the 32 km-long Afsluitdijk, the largest piece of infrastructure in the country, with Vanthek's 150-tonne capacity Kobelco CKE1350 crawler crane playing a key role.



Renovation of the 32km-long, 90m-wide Afsluitdijk, built with an initial height of 7.25m above sea level between 1927-31 is due for completion in 2025. The €1.57 billion (£1.34 billion) contract includes management and maintenance for 25 years and is being undertaken by the Level construction consortium (BAM, Van Oord, Rebel, Invesis).

Vanthek's 150-tonne capacity CKE1350 was used to install sheet-pile walls at two pumping stations. For the first, the CKE1350 worked on land to install a 30m-long combi-wall of 25.8m-long 1220 piles, with in-between 21.5m-long AZ24-700 sheet pile, alongside a 120m-long sheet-pile-wall using 25.5m and 23.5m-long AZ42-700 sheet-piles.

To carry out the work, the CKE1350 was equipped with a 49m boom and a 70-tonne hook block. The sheet piles and tubes were put into place by using a 2350 VM vibro hammer with a centrifugal force of 200 tonnes. The combined weight of the tubes and hammer was approximately 60 tonnes.

Once complete, Vanthek moved the CKE1350 onto a barge to construct a combi-wall using 25.8m-long 1220 tubes in combination with 21.5m-long AZ24-700 sheet piles. After this, another 100m-long quay wall, using 27.5m-long AZ52-700, and 26.5m-long AZ40-700 sheet piles was constructed.



# Huge lock extension

Modernisation of the Quesnoy-sur-Deûle lock, near Lille, part of Voies Navigables de France's €40 million European Seine-Escaut canal project, will see the lock extended to 144.6m-long, allowing it to carry bigger ships and bringing it into line with other locks along the canal, with Dufour's Kobelco crawler cranes key to its successful delivery.



The project to extend the Quesnoy-sur-Deûle lock, located on the Deûle-Lys axis, is part of the major European Seine-Escaut program and aims to develop the river corridor connecting the Seine basin to the networks of Nord, Pas-de-Calais and Belgium, with access to North Sea ports.

Over 13,000 ships per year use the 110m x 12m lock, which was built in 1980. Work to extend it to 144.6m began in the first half of 2023 and will last until late 2025.

French international crane rental and transport company Dufour is using five cranes, including three Kobelco crawler cranes, namely two 90-tonne capacity CKE900Gs and a 135-tonne capacity CKE1350G, to extend the 110m-long lock to 144.6m, enabling it to carry boats of up to 135m-long.

Dufour's three Kobelco crawler cranes have been used to help reinforce the banks, on the right by installing 300m of riprap embankment, and on the left, installing a 300m-long curtain of sheet piles underwater with riprap, with one of the CKE900Gs and the CKE1350G working from the bankside, while the other CKE900G worked from one of the Dufour's barges.



# Kobelco launches new telescopic crawler crane

Kobelco Construction Machinery Co., Ltd. announces the launch of its new telescopic boom crawler cranes with a maximum lifting capacity of 75 tonnes for the first time in the European market.

New for the European market, Kobelco Construction Machinery's new TKE750G is equipped with a Stage V-compliant Mercedes-Benz E9H01 (Daimler OM936LA) engine and continues the same basic concept of the G series lattice boom crawler crane models.

The TKE750G will be launched from mid-2024 onwards.

## Main features

### 1.EXCELLENCE IN DESIGN

The machine concept is built on the same tried and tested technology as the G series lattice boom crawler crane models offering high reliability, great utilization, and simple ease of operation by design alongside excellent durability and commonality across all the G series models.

### 2. DURABILITY FOR FOUNDATION WORKS

Since launching its telescopic boom crawler crane line-up for the Japanese market in 2000, KOBELCO has delivered more than 400 units, ranging from 35 to 75 tonnes.



These machines are mainly used for foundation works using vibration hammers, auger drilling, and hammer-grabs for all casing methods, etc. The new telescopic crawler cranes include a larger engine capacity, shorter boom length with higher winch capacity on standard main/auxiliary winches, with stronger, thicker wire ropes offering higher capability of foundation works in comparison

with conventional telescopic crawlers.

### 3. PURPOSE BUILT DURABLE BOOM DESIGN

The TK model is equipped with an exceptionally stiff 4-plate box structural boom that has been designed for foundation work. The boom's lightweight and durability have been achieved through optimizing materials,



construction, and welding.

Thanks to the short boom length with a side deflection-resistant fully powered boom, the crane is capable of taking on any job, especially on compact job sites.

The crane is equipped with 22mm wire rope with a 7-tonne rated line pull. The main and auxiliary winches are positioned vertically at the rear end, helping maintain a compact main body.

### 4. STAGE V COMPLIANT POWERFUL ENGINE

The new TKE750G is powered by a Mercedes-Benz E9H01 (Daimler OM936LA) 7.697l water-cooled, in-line 6-cylinder direct injection and turbocharged engine, with a rated power output of 254kW/2,000 min-1, that is compliant with NRMM (Non-Road Mobile Machinery - Europe) EU Stage V regulations. This extremely powerful engine offers higher hydraulic performance for

various types of foundation operation.

Kobelco's KCROSS (Kobelco Crane Remote Observation Satellite System) is also retained on the TKE750G model.

Machines fitted with KCROSS transmit working conditions, locations, and maintenance history to provide owners with fact-based information for their asset management.

## Main specifications

Model		TKE750G
Max. Rated Load	10.0 m boom	75.0 t x 3.0 m (11-lines)
	16.7 m boom	36.0 t x 4.5 m (6-lines)
	23.4 m boom	29.0 t x 6.0 m (5-lines)
	30.1 m boom	18.5 t x 8.0 m (4-lines)
	Aux. sheave (Max.)	7.0 t (1-line)
Main Boom Length		10.0 m to 30.1 m
Winch (Main/Aux.)	Max. Line Pull (Referential performance)	153.1 kN {15.6 tf}
	Rated Line Pull (Single Line)	68.7 kN {7.0 tf}
	Wire Rope Diameter	22 mm
Power Plant		Mercedes-Benz E9H01 (Daimler OM936LA)



# More than just blocks!

Established in 1963, Surinam headquartered VABI (Van Alen Beton Industry) has specialized in the production of high-quality concrete products for over 70 years, including building blocks, sewer pipes and curb belts, alongside road building and raw materials handling.



VABI recently acquired two new 80 tonne capacity Kobelco crawler cranes, a CKS800 and a CKE800G, both of which are currently working in working in Paramaribo, Surinam with a clamshell bucket for dredging and loading / unloading ships.



VABI's new 80-tonne capacity CKS800 loading 4,700 tonnes of crushed stone for use in road construction in Guyana. The weight of the clamshell bucket was 4 tonnes when fully loaded, with the CKS800 taking less than 24 hours to load the ship.

In the 1970s VABI expanded its operations. This resulted in the need for cranes suitable for excavating river sand and gravel for the production of concrete, with VABI's sistercompany N.V. Skwalla dedicated to their excavation and river transport. "Quality and reliability have always been the key-qualities of VABI throughout those years," says Rene Van Alen, plant and technical director, VABI.

"Originally VABI worked with several P&H 320H cranes, made by Kobe Steel in Japan, which is how VABI started to become acquainted with Kobelco cranes," explains van Alen. "These machines always proved to be very reliable. Even today some of these P&H 320H cranes are still in working condition."

When looking for new or used cranes, VABI consults service support company S J Wouters, who specialize in the sale and service of

Kobelco and other cranes, and other equipment, including recently, when it was looking for a larger capacity crane to be used at its port facilities in Surinam for loading and unloading vessels and handling its own products.

"We were looking for an 80-tonne capacity crane for these business operations," explains Van Alen, "and one of our main conditions was that it had to be a crane with good availability of its spare parts."

Having researched the options and compared several offers, S J Wouters recommended a new Kobelco CKE800G, equipped with a 42.7m boom, with runner, a 7 tonne ball hook and a 50 tonne hook block, a hydraulic tag-line for working with a clamshell bucket, and a free fall system on the main and auxiliary winches.

"We were extremely satisfied with

this new great addition," says Van Alen. "So when we had need for another crane of the same capacity, we had no hesitation in purchasing a new, 80-tonne capacity Kobelco CKS800 with the recommendation of S J Wouters."

Shipped directly from Japan and officially commissioned by Kobelco in 2023, the CKS800 arrived equipped with 27.5m main boom, a 50 tonne hook block and a hydraulic tag-line for working with a clamshell. The tag-line's tension can be adjusted by the crane operator from inside the cab. The clamshell bucket weighs 1.5 tonnes and has a volume of 3.5 m<sup>3</sup>. When loaded with sand it has a maximum weight of 4.8 tonnes.

"Thanks to the excellent service and ready availability of spare parts, we look forward to enjoy working with both cranes for many years to come!" says Van Alen.



# Impressive 3:1 pile-driving with Kobelco CKE2500G-2 PD+

Special requests from customers are handled by Kobelco's 'Special Products' division, so when land and marine contractor Artes Depret, was looking for a brand new 250-tonne CKE2500G that could work as a crane for general lifting operations, and also as a foundation machine for piling operations, 'Special Products' swung into action!

To realise Artes Depret's request, Kobelco Construction Machinery Europe's Crane Division contacted Vanthek Piling & Drilling Equipment, who specialize in foundations, and who are one of its customers.

Following extensive discussions between the two parties, Vanthek designed and engineered the concept for a CKE2500G Pile-Driver-System (PDS) for Artes.

Bart van't Hek, director, Vanthek Piling & Drilling Equipment said: "With over 79 years of extensive foundation know-how and experience providing ideal foundation solutions, and with an excellent reputation in performance and reliability, Vanthek is one of the market leaders in the innovative and world-famous Dutch foundation industry."

Vanthek had previous experience with designing and engineering the conversion of a 250-tonne capacity Kobelco CKE2500G general lifting crawler crane into a CKE2500G pile-driving foundation machine, including for Huisman, who design, manufacture, and service heavy construction equipment for the renewable energy, oil and gas, civil, naval and entertainment sectors.

Working with the assistance of HekTec, its own engineering company, Vanthek presented a concept and quotation based on the Kobelco

Artes Depret's CKE2500G-2 PD working with a flying leader driving M/V piles with H-profiles at approximately 45 degrees into the ground while adding grout around the M/V pile providing an extremely strong ground-anchor.







“Vantheek Piling & Drilling Equipment said: “With over 79 years of extensive foundation know-how and experience providing ideal foundation solutions, and with an excellent reputation in performance and reliability, Vantheek is one of the market leaders in the innovative and world-famous Dutch foundation industry.”  
Bart van’t Hek, director



CKE2500G-2 for a Pile-Driver and PDS / PD+ attachment (PDS = Pile-Driving-System) that could easily be installed or removed depending on the job requirements.

With PD attachment, with leader, which could be used as a flying leader for driving Müller-Verpress piles (MV piles). Also available in PD+ configuration with hydraulic telescopic boom stabilizers,

allowing for pile position 3:1 inclined backwards/forward

The design features a pile-driving attachment with a leader length of 54m that can be equipped with a pile and vibro-hammer, weighing up to 70 tonnes, for driving piles with a maximum length of 46m.

In PD+ configuration the CKE2500G foundation machine is easily capable of handling pile

positions 3:1 inclined backward and forward. With the CKE2500G in Flying Leader configuration excellent results are achieved when driving MV piles under extreme inclinations.

Commenting on its new foundation machine, Artes said: “During the design, construction, and assembly of the PD and PD+ attachment - 54m-long leader, foundation

table, winches, and hydraulic boom stabilizers, etc. - Vantheek went all out incorporating its extensive foundation expertise know-how, and experience for delivering the best-possible PD and PD+ attachment, which was well received.

In response, Bart van't Hek said “This CKE2500G PD+ has been developed by a project team with extensive foundation know-how

and experience in foundation techniques and in designing foundation machines, and, even though the engineering and construction time was limited, thanks to effective planning Vantheek’s project team managed to get the foundation machine ready on time, including extensive testing and first inspection approval, thanks to close cooperation between all the parties!”



# Dyke improvement

Vanthek's 150 tonne capacity, Stage IV and Tier 4 Final Kobelco CKE1350 crawler crane constructing a quay for the unloading of materials used to reinforce the Markermeer lake's dykes, including sand and clay.



Reinforcing the Markermeer's dykes is a continuous process, and never-ending for the Hoogheemraadschap Hollands Noorderkwartier (North of Holland Regional Water Authority) and Rijkswaterstaat (Ministry of Infrastructure and Water Management) as they seek to protect the country from rising sea levels, unusually strong storm surges and freak weather events.

Design and delivery involved cooperation between the national and local government, water authorities, businesses, social society organisations, and residents, with these tailor-made solutions considering matters as diverse as cultural history, flora, and fauna. In some places, for example, the Rijkswaterstaat has reinforced part of the dike with 'rubble stone', while other parts are reinforced with wide sandy banks.

As part of the ongoing works, Vanthek's CKE1350 crawler crane is constructing a floating quay for the unloading of materials, such as sand and clay, which will be used to reinforce the lake's dykes, without disturbing the local flora and fauna.



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